WHAT IS CLAIMED IS:

1. A heat-resistant, austenitic spheroidal graphite cast iron comprising 1-4.5% by weight of Mo, and 0.001-0.5% by weight of Sn and/or Sb as (2Sn + Sb).

2. The heat-resistant, austenitic spheroidal graphite cast iron according to claim 1, wherein it has a composition comprising 1-3.5% of C, 1-6.5% of Si, 3% or less of Cr, 10-40% of Ni, 1-4.5% of Mo, 0.001-0.5% of Sn and/or Sb as (2Sn + Sb), and 0.1% or less of a graphite-spheroidizing element, on a weight basis.

3. The heat-resistant, austenitic spheroidal graphite cast iron according to claim 1 or 2, wherein it further comprises 0.3% or less by weight of N.

4. The heat-resistant, austenitic spheroidal graphite cast iron according to any one of claims 1-3, wherein it has room-temperature elongation of 2% or more, weight loss by oxidation of 30 mg/cm^2 or less when kept at 950°C for 200 hours in the air, and 0.2-% yield strength of 55 N/mm^2 or more at 950°C in the air.

5. The heat-resistant, austenitic spheroidal graphite cast iron according to any one of claims 1-4, wherein it has a thermal fatigue life of 400 cycles or more in a thermal fatigue test of heating and cooling at the highest temperature of 950°C, a temperature amplitude of 800°C and a constraint ratio of 0.5.

6. The heat-resistant, austenitic spheroidal graphite cast iron according to any one of claims 1-5, wherein it has an average thermal expansion coefficient of 18×10^{-6}/°C or less in a range from room temperature to 1000°C.